Areas of Highest Predicted Abundance for Select Forest and Shrubland Bird Species of Special Conservation Concern Proximal to Necedah National Wildlife Refuge Private Lands Program Boundary

Mapped patterns in the distribution and abundance of rare or focal species can be useful in identifying priority areas for conservation. We have modeled and mapped rare bird abundance in the upper Midwestern United States for more than a dozen species of conservation concern. Our work has focused on the Prairie Hardwood Transition (Bird Conservation Region 23). This map describes the juxtaposition of areas of highest predicted relative abundance for forest and shrubland bird species within and surrounding the Necedah National Wildlife Refuge private lands program boundary. Identifying private land owners relative to areas in which species predicted abundances are high may help to focus conservation resources in those areas in which they may do the most good.

Data References

Major Cities depicted using data acquired from the National Atlas of the United States web site (http://nationalatlas.gov/mld/citiesx.html). Major cities were determined to be those that had a population in 2000 of greater than 10,000 persons.

Major Highways represents the major highways of the United States. These include interstates, U.S. highways, state highways, and major roads. This dataset is a subset of the U.S. Detailed Streets dataset. It contains all Class 1 and 2 road segments plus any other road segments necessary to provide network connectivity. Major Highways were created by Tele Atlas North America, Inc. This data was published by Environmental Systems Research Institute (ESRI) and made available for distribution.

States data were acquired from the National Atlas of the United States web site (http://nationalatlas.gov/mld/statesp.html).

Counties data were acquired from the National Atlas of the United States web site (http://www.nationalatlas.gov/mld/countyp.html). Necedah National Wildlife Refuge private lands boundary was derived from this dataset.

Large Water Bodies data were acquired from the National Atlas of the United States water feature areas data set (http://nationalatlas.gov/mld/hydrogm.html)

Background shaded relief elevation image was acquired from the National Atlas of the United States. This image has a horizontal resolution of 200 meters (http://nationalatlas.gov/mld/srgy48i.html).

Necedah National Wildlife Refuge boundary was downloaded from the United States Fish and Wildlife Refuge Geographic Information Systems website (http://gis.sds.fws.gov/website/fwsbndry/CustomHelp.htm)

Methods

For detailed methods on avian abundance modeling, see: http://www.umesc.er.usgs.gov/terrestrial/migratory_birds/bird_conservation_methods.html

